Martin, John

From: Hadwin, Erik < Erik. Hadwin@WestonSolutions.com>

Sent: Monday, November 02, 2015 6:52 AM

To: Martin, John

Subject: RE: Williams Bayou Black Info

I hope that it was what you were looking for...

Erik Hadwin 225-773-9104 (cell)

From: Martin, John [mailto:martin.john@epa.gov] Sent: Sunday, November 01, 2015 12:12 PM

To: Hadwin, Erik

Subject: RE: Williams Bayou Black Info

Good info. Thanks

Sent from my Windows Phone

From: Hadwin, Erik

Sent: 10/31/2015 1:48 PM

To: Martin, John

Subject: Williams Bayou Black Info

I tried to send this info yesterday, but it took a bit of digging around through LDEQ Electronic Data Management System (EDMS) and EPA's facility database, and then I had to be daddy taxi. Anyway, I believe that I found what you're looking for about the Transco/Williams Bayou Black Facility.

At the site, there are two separate facilities that are owned by Transcontinental Gas Pipe Line Company, a subsidiary of Williams Companies. There is the Bayou Black Natural Gas Dehydration/Condensate Stabilization, Handling & Terminaling Facility (Bayou Black), where the incident occurred, and the Compressor Station 62 Facility (Station 62). See the attached figures "Williams Transco Facility Figures" for an overview and close-up view of the facilities. I found most of the information from Bayou Black's Oct 2014 and Station 62's Aug 2015 Title V permit renewal applications.

Bayou Black is a natural gas separation facility that removes liquids (saltwater, liquid hydrocarbons, and water vapor) from natural gas originating from production wells in the Gulf of Mexico to the Southeast Louisiana lateral pipeline system. The Bayou Black facility provides for dehydration of natural gas for downstream processing, as well as stabilization, handling, and terminaling of condensate liquids. Bayou Black has SIC and NAIC codes 1321 (Natural Gas Liquids) and 211112 (Natural Gas Liquid Extraction), respectively. As shown on the attached figure "Bayou Black Process diagram", raw natural gas comes into the facility via pipeline. The raw natural gas enters the slug catcher where free water and natural gas liquids/petroleum condensate (ethane, propane, butane, pentanes, and natural gasoline) is separated from the natural gas. The natural gas is then sent to glycol dehydrators where water vapor is removed from the natural gas through absorption with triethylene glycol. Following dehydration, the natural gas is sent via pipeline to the Shell Terrebonne Processing Plant where is it processed into "pipeline quality" dry gas. The gas is processed through the removal of remaining water vapor and gases such as hydrogen sulfide, carbon dioxide, helium, and nitrogen and enriched by the addition of methane, if needed, to meet pipeline and customer specifications. After processing, the "pipeline quality" natural gas is sent via pipeline to Station 62 for transmission downstream to customers. The attached figure "Natural Gas Flow" illustrates the overall process.

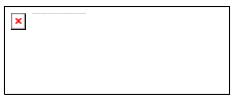
In addition to the natural gas, Bayou Black also stabilize, handle, and terminal the natural gas liquids. Also as shown on the figure "Bayou Black Process diagram", the liquids (free water and natural gas liquids/condensate) is sent to a flash separator where the natural gas liquids, water, and flash gas are separated. The natural gas liquids and water are stored onsite, and the flash gas is sent to dehydrator and mixed with natural gas. The natural gas liquids are then transported off-site via tanker truck to customers. At one time Bayou Black transported natural gas liquids off-site via barge, but they discontinued this operation.

At the Bayou Black Facility, the following is stored per their Title V permit renewal dated October 2014:

- 3 tanks of triethylene Glycol totaling 62,790 gallons
- 3 tanks of saltwater totaling 159,180 gallons
- 4 tanks of natural gas liquids/petroleum condensate totaling 1,738,200 gallons
- 1 tank of gasoline totaling 250 gallons

As far as how LDEQ regulates them, I only found air and water permitting documents in LDEQ's EDMS. In EPA's facility database, Bayou Black is noted as a large quantity generator of D001 (ignitable) and D018 (benzene) Characteristic Hazardous waste and Station 62 is notes a Conditionally Exempt Small Quantity Generator of D001, D008 (lead), D018, and D035 (Methyl Ethyl Ketone) Characteristic Hazardous waste and F003 and F005 Listed Hazardous Waste. See the attached files "Bayou Black Detailed Facility Report, Bayou Black RCRA info, Compressor Station 62 Detailed Facility Report, and Compressor Station 62 RCRA info" for details about these facilities.

I hope this helps. I also attached LDEQ's letter to Bayou Black for waste management plan following incident, Bayou Black's waste management plan, and figures of Station 62. Let me know if you need any additional info.



Erik Hadwin

Project Scientist

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